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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/884,152	06/20/2001	Katsuhiko Iwashita	209802US2	3534

22850 7590 01/16/2003

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EXAMINER

PETKOVSEK, DANIEL J

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 01/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/884,152

Applicant(s)

IWASHITA ET AL.

Examiner

Daniel J Petkovsek

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-19 is/are allowed.
- 6) ☒ Claim(s) 1-4, 11-12, 14-15 is/are rejected.
- 7) ☒ Claim(s) 5-10, and 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06/20/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.

- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. The prior art document submitted by Applicant in the Information Disclosure Statements filed on June 20, 2001, has been considered and made of record (note attached copy of forms PTO-1449).

### ***Specification***

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Allowable Subject Matter***

4. Claims 16-19 are allowed. The relevant prior art does not teach or reasonably suggest an optical waveguide module having the following limitations: 1<sup>st</sup> array member with a plurality of optical fibers connected to a 1<sup>st</sup> connection member, a 2<sup>nd</sup> array member with at least one optical fiber connected to a 2<sup>nd</sup> connection member, a waveguide chip for multiplexing different optical signals, where first array member is bonded to input end of waveguide with an adhesive, an auxiliary connection member is attached to output end of waveguide, 2<sup>nd</sup> connection member is connected to auxiliary member, 2<sup>nd</sup> array member coupled to output end of said waveguide chip, a clamping presser member disposed across auxiliary connection member and 2<sup>nd</sup> array member,

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and the cores of the optical fiber and optical waveguide chip being in direct contact with each other.

5. Claims 5-10, and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The relevant prior art does not teach or reasonably suggest that the cores of the optical fiber (or the waveguide chip) project from the end faces of the connection members to prevent the fibers from contacting the auxiliary connection member during alignment.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Watanabe et al.

U.S.P. No. 6,257,769.

Watanabe et al. U.S.P. No. 6,257,769 teaches (Abs, Figure 5) an optical waveguide module comprising: a waveguide chip having connecting members on opposite ends of the waveguide chip, optical fiber ribbons 21 connected to the waveguide through a second connector

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member, a clamp spring presser member 24 for maintaining connection of fiber/waveguide, in which direct contact between the optical waveguide and optical fiber results (column 2 lines 30-36).

Regarding claim 3 and 4, clamping member is across waveguide chip and optical fiber.

Regarding claim 4, clamping member is clamped on array member.

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***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11, 12, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. U.S.P. No. 6,257,769.

Watanabe et al. U.S.P. No. 6,257,769 teaches (Abs, Figure 5) an optical waveguide module comprising: a waveguide chip having connecting members on opposite ends of the waveguide chip, optical fiber ribbons 21 connected to the waveguide through a second connector member, a clamp spring presser member 24 for maintaining connection of fiber/waveguide, in which direct contact between the optical waveguide and optical fiber results (column 2 lines 30-36). Watanabe et al. '769 does not explicitly teach the adhesive layer thickness of the connection member to the waveguide chip or the power in mW or the optical signal passing through the waveguide. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use adhesive layers of 20 um or less to improve costs and performance.

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Also, the Applicant uses the limitation that the maximum optical power of 300 mW or more is signaled. These power values are well known in the art for fiber to thin film connection devices, and would have been obvious to a person having ordinary skill in the art to use these optical powers in the optical module of Watanabe et al. '769.

Regarding claims 11 and 12, a buffer layer between the auxiliary member and the waveguide would have been obvious to a person having ordinary skill in the art since contact is not desired between the optical fiber core region and the auxiliary connection member during the alignment process of Watanabe et al. '769.

### ***Inventorship***

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, with respect to the state of the art of waveguide to fiber optical connectors:

PTO form 892 references A, C-I, and N.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J Petkovsek whose telephone number is (703) 305-6919.

The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (703) 308-4819. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 872-9321.



Daniel Petkovsek  
January 10, 2003



Brian Healy  
Primary Examiner